

MECHANICAL SEAL
CENTRIFUGAL GUAGES

ALSTOM

Air Preheater Company

Quote Number:

2CS0276A-4098Air Preheater Company
ALSTOM Power Inc.3020 Truax Rd, P. O. Box 372
Wellsville, New York 14895

www.airpreheatercompany.com

QUOTATION TO: **JERRY FINLINSON**
INTERMOUNTAIN POWER

Page Number: 1 of 1

Revision Date: 01/30/02

PHONE: 435-864-6466

FAX: 435-864-6670

Area Office: Los Angeles

TermsNet 30 Days

Quote Date	Customer Inquiry Number	Customer Inquiry Date	Shipment of Materials After Receipt of Order	All Prices are:
01/30/02	VERBAL	01/25/02	10 WEEKS A.R.O.	FOB Wellsville, NY - Frt. Collect

Ljungström® Air Preheater

Station: LYNNDYL- UNITS #1 & 4- SEC.

Size: 2- 33.5 VI

LAP- 4098 / 4104

Item No.	Part Number	Description	Order Qty	U/M	Unit Price	Total Price
1	TBA	HOT END SEAL CLEARANCE GAUGES - (2) GAUGES PER SECTOR PLATE -(4) PER END	4	SETS	\$4,200	\$16,800.00
2	TBA	COLD END SEAL CLEARANCE GAUGES - (2) GAUGES PER SECTOR PLATE- (4) PER END	4	SETS	\$4,200	\$16,800.00
TOTAL						\$33,600.00
THANK-YOU FOR THE OPPORTUNITY TO SERVE YOU.						

For tax purposes, Purchase Order is required prior to Shipment. Late Payments are subject to a charge of 1 1/4% per month.

HRSPD-11/1301

The Air Preheater Co. "Standard Terms and Conditions of Sale" GS-634-HRSA-10/24/00 shall apply to this transaction.

Prices are valid for 30 days from date of quote. Air Preheater's minimum billing is \$150 per order/release/shipment.

**Lead Time: Based on material shipment after receipt of approved purchase order and/or authorization to manufacture.

For additional information please contact:

Barry E. Campbell - Sr. Customer Service Rep

Ph: (585)-596-2780

Fax: (585)-593-3172

email: barry.e.campbell@power.alstom.comAir Preheater Company
Heat Recovery Services - Project Development

IP7_034082

ALSTOM

Air Preheater Company
ALSTOM Power Inc.

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Ljungström® Air Preheater

Station: LYNN DYL- UNITS #1 & 4- SEC.
Size: 2- 33.5 VI
LAP- 4098 / 4104

Item No.	Part Number	Description	Order Qty	U/M	Unit Price	Total Price
1	TBA	HOT END SEAL CLEARANCE GAUGES - (3) GAUGES PER SECTOR PLATE - (6) PER END	2	SETS	\$5,150	\$10,300.00
2	TBA	COLD END SEAL CLEARANCE GAUGES - (3) GAUGES PER SECTOR PLATE - (6) PER END	2	SETS	\$5,150	\$10,300.00
THANK-YOU FOR THE OPPORTUNITY TO SERVE YOU.						

For tax purposes, Purchase Order is required prior to Shipment. Late Payments are subject to a charge of 1 1/2% per month.

HRSPD-11/15/01

The Air Preheater Co. "Standard Terms and Conditions of Sale" GS-634-HRSA-10/24/00 shall apply to this transaction.

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Air Preheater Company
Heat Recovery Services - Project Development



IP7_034083

ALSTOM

3020 Truax Rd
WELLSVILLE, NY
Phone: (585) 596-2780
Fax: (716) or (585) 593-3172
Email: barry.e.campbell@power.alstom.com

AIR PREHEATER COMPANY**Fax**

To: JERRY FINLINSON
INTERMOUNTAIN POWER

From: BARRY E. CAMPBELL
SN. CUSTOMER SERVICE REP.

Fax: 435-864-6670
Date: January 30, 2002

Phone: 435-864-6466
Pages: 1 OF 4

Re:
CC:

•Comments: QUOTE #2CS0276-4098**ATTACHED FOR YOUR REFERENCE FOR SEAL CLEARANCE GAUGES.**

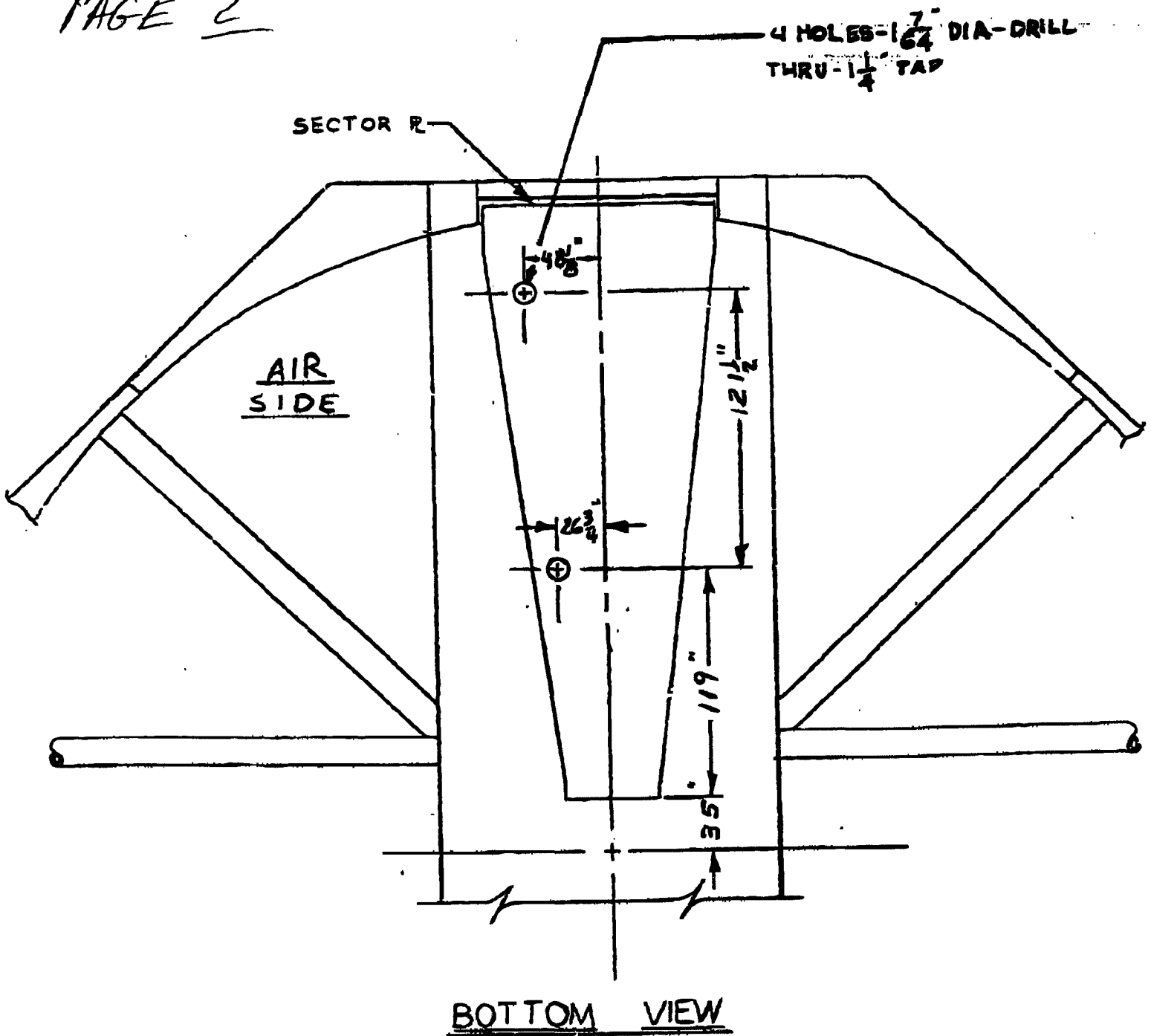
- PAGE 2- SHOWS (2) PER SECTOR PL. INSTEAD OF (3) PER SECTOR QUOTED.
- PAGE 3- TYPICAL COLD END ARRANGEMENT
- PAGE 4- TYPICAL HOT END ARRANGEMENT

LIST OF REFERENCES:

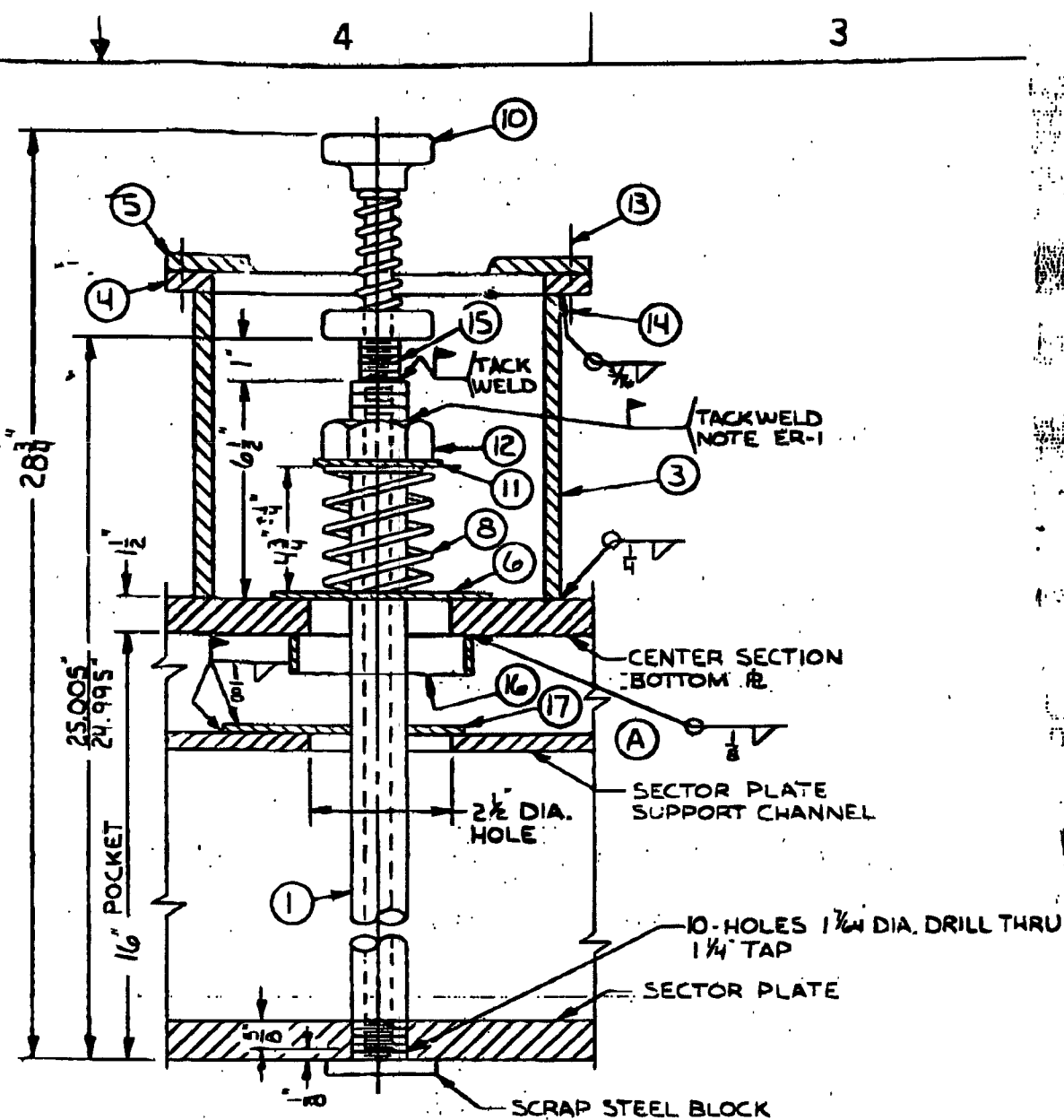
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|----------------------|-----------------|-----------------|
| • ILLINOIS POWER | BALDWIN STATION | COLD END |
| • DESERET GENERATION | MOON LAKE | HOT END |
| • SALT RIVER PROJECT | CORONADO | HOT & COLD ENDS |

Best Wishes,***Barry Campbell*****Senior Customer Service Rep.****IP7_034084**

PAGE 2



PAGE 3



SECTION 'A'-A'

MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

TO: George W. Cross
FROM: Dennis Killian
DATE: September 11, 2002
SUBJECT: U1 Secondary Air Heater Mechanical Seal Clearance
Gauges

We recommend installation of 1 set of seal clearance gauges on each U1 Secondary Air Heater sector plate this upcoming outage. These are mechanical gauges that allow manual measurement of the sector plate to seal gap when online. (See attached sketches).

In the past there has been a difficulty estimating the online secondary air heater seal clearance gap. Welded hard stops were installed to prevent the sector plate from scraping on the seals. We now have to assume how much the baskets droop based on Air Preheater's assumptions of basket droop. This gap will likely change with the upcoming basket changeout. If the gap is 3/8 inch too large it has been estimated by Alstom to cost approx \$4K/year in lost heat rate.

Attached is a \$6200 requisition for the gauges. The material is for both air heaters in unit 1. It is estimated to take mechanics 30 hrs to install each gauge during the outage. With your approval we will schedule work order_____. The funds will come from miscellaneous capital budget under IGS02-1j. Please contact Jerry Hintze x6460 or Jerry Finlinson x6466 with questions.

George W. Cross _____

Date: _____

JCF:
Attachments.

*postpone & add in w/ Brett's
basket change out.*

IP7_034088

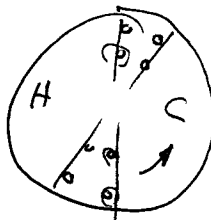
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ALSTOM Power Inc.
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QUOTATION TO: JERRY FINLINSON
INTERMOUNTAIN POWER

Page Number: 1 of 1

Revision Date: 09/06/02

PHONE: 435-864-6466

FAX: 435-864-6670

Area Office: Los Angeles

TermsNet 30 Days

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Ljungström® Air Preheater

Station: LYNNDYL- UNITS #1 & 4- SEC.
Size: 2- 33.5 VI
LAP- 4098 / 4104

Item No.	Part Number	Description	Order Qty	U/M	Unit Price	Total Price
1	TBA	HOT & COLD END SEAL CLEARANCE GAUGES - (2) GAUGES PER SECTOR PLATE -(4) PER END- (8) PER HTR.- (16) F/ 2 HTRS.	16	EA	\$775	\$12,400.00
1A	TBA	HOT & COLD END SEAL CLEARANCE GAUGES - (1) GAUGE PER SECTOR PLATE- (2) PER END- (4) PER HTR.- (8) F/ 2 HTRS. NOTE: THE ADVANTAGE OF (2) GAUGES PER SECTOR PLATE IF PLACED IN-LINE WITH THE SEALS WOULD CHECK THE CLEARANCES @ 2 DISTINCT POINTS ALONG THE SEAL. NOTE: ANOTHER ADVANTAGE FOR THE SEAL CLEARANCE GUAGES POSITIONED ON EACH SECTOR PLATE HELPS DETERMINE IF THE SECTOR PLATES ARE IN-PLANE WITH THE ROTOR & EACH OTHER. THANK-YOU FOR THE OPPORTUNITY TO SERVE YOU.	8	EA	\$775	\$6,200.00

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HRSPD-11/1301

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email: barry.c.campbell@power.alstom.com

Air Preheater Company
Heat Recovery Services - Project Development

IP7_034089

INTERMOUNTAIN POWER SERVICE CORPORATION

☒ REQUISITION FOR CAPITAL EQUIPMENT

☐ PURCHASE AUTHORIZATION FOR EXPENSE ITEMS

Purpose of Materials, Supplies or Services:

Measure the Secondary Air Heater seal clearance gap while online and allow better estimate of leakage.

Date: 9 Sept 2002

Req./PA No:

P.O. No:

Vendor:

Terms:

FOB:

Ship Via:

Conf. To:

Suggested Vendor: Air Preheater Company - Alstom
3020 Triax Rd, PO Box 372
Wellsville, NY 14895
Barry E. Campbell 585-596-2780
see quote number 2CS0276B-4098

Account No. 00-9HRX-401
Work Order No. _____
Project No. _____

Qty	Unit	Noun	Description Adjective	Catalog #	Seller or Manufacturer	Unit Cost	Extension
8	Ea.		Hot and Cold End Seal Clearance gauges - (1) gauge per sector plate - (2) per end - (4) per			\$775.00	\$6,200.00
					TOTAL ESTIMATED COST		\$6,200.00

Remarks: These are custom gauges designed and manufactured by the Original Equipment
Manufacturer to fit on our Ljungstrom Air Preheaters and can only be supplied by Alstom.

Delivery requested by [Date] 4 Feb 2003 Originator Jerry C Finlinson 6466

Dept. Mgr/Supt.	Date	Station Manager	Date	Operating Agent	Date
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IP7 034090